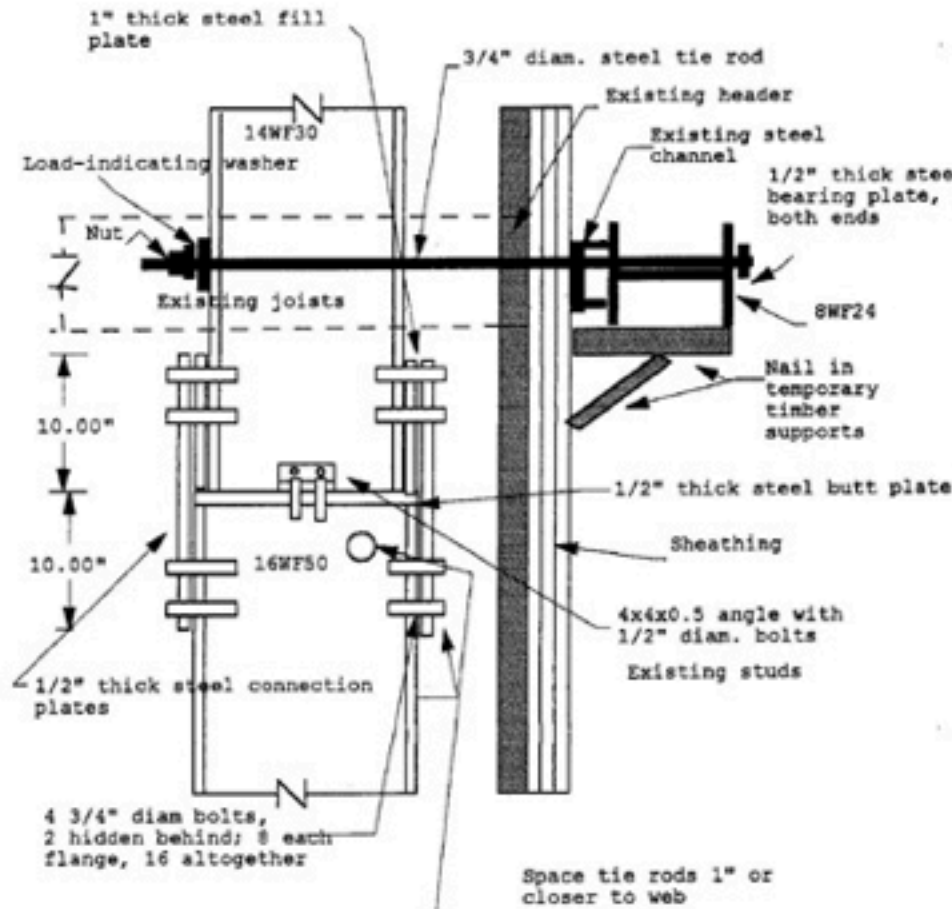


**4-story timber and brick residential building, Hoboken, New Jersey**

Problem: Building leaning 20 inches to the north.

Solution: Designed and built two steel towers to straighten and stabilize the building.



At east column, reroute 4" pvc sanitary pipe at 1st floor ceiling and 2nd floor ceiling (similar), using same size elbows. Maintain proper pitch for drainage.

Space tie rods 1" or closer to web

Allow sufficient extra bolt length

Where there is no existing channel, use spacers to brace new exterior wall beam (applies to lower beam only)

**Column Splice and Tie Rod Connection to Horizontal Brace**

Scale: 1" = 10"

Note: floor-to-floor heights are approximate and should be verified by contractor

